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AN

INAUGURAL ESSAY

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ON

HYDROPHOBIA

BY

Geo: Spackman
of
PHILADELPHIA.

1828.

Hydrothorax is a disease more especially found among the aged and intemperate; though sometimes it attacks those of middle age, and even the young are not exempt from it. It is by far the most formi=dable of the dropsies, and when once it takes a firm hold of an individual, is greatly to be dreaded; though I am far from considering it a disease of general fatality.

That hydrothorax which occurs in the old and intemperate, proves fatal in a large majority of cases; yet under more favourable circumstances, it

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may be made to yield as readily as any other form of dropsy.

There has been much diversity of opinion with respect to the Pathology of dropsies; which still remain to be settled.

Some have taught that it depends on a destruction of that exact balance which exists between the exhalants and absorbents in a healthy state of the system; giving rise to an excess in the exhalations, or a defect in the powers of absorption.

At one time this was admitted by the majority of medical men, but this hypothesis has been questioned of late.

Others have attributed it to debility of the exhalants. Some again, account for it on mechanical principles; and there are not wanting those who ascribe it to a morbid condition of the heart and

great blood vessels.

It would be time misspent for me to undertake the solution of the difficulty. That doctrine which appears best to suit my medical creed has long been advocated and taught by the ingenious and learned Professor of the practice of medicine in the University of Pennsylvania, and much credit is justly due upon this subject to the talants and researches of American Genius.

It is maintained by Professor Chapman that the fluid in dropsy is widely differ=ent from that which the exhalants pour out in health, and that the real cause of the disease is to be sought for in a condition of things on which this morbid secretion depends; that the proxi=mate cause is an altered state

of the blood vessels, and that the effusion is the proximate effect.

If the excited blood vessels, instead of effusing fluid into the cavity of the thorax, should be relieved by perspir=ation or copious urination, a cure will follow; but if they should have their action inverted, we then have an effusion into the thoracic cavity, acting the part of a morbid irritant; which must be considered as in <u>error loci</u>, causing a further increase of effu=sion, general irritation and fever. If the effused fluid constituted dropsy, why will not the removal of it be followed by a cure? So far from this taking place, a sudden removal produces prost=ration of the system, great distress. and even death has been the result.

I believe that there is an altered state of the blood vessels, usually associated with acute, though not generally and not inflammatory, which existed antecedently to the effusion; and that this inflammation is of a peculiar kind: for the serous and cellular tissues may pass through an inflammatory state without producing effusion, the investment may be filled with extravasated coagulable lymph, and also the cellular membrane secrete pus. From this it may be seen that the dropsical effusion depends on a certain degree of intensity of the inflammation; for high inflammatory action mostly results in an effusion of coagulable lymph or in the secretion of pus

Consumption, may therefore be defined, a disease which is the result of an acute, that more commonly a subacute inflammation of the secreting tissue of the lungs; terminating in an exudation of a serous fluid into the cavity of the thorax.

The disease is most frequently results from acute and chronic Pleuritis, Asthma, Pneumonia of aged persons, &c.

The symptoms of the disease are frequently slow and often insidious in their commencement; though often rapid in their course and sudden in their termination.

Among the first symptoms, is felt a weight at the lower part of the sternum, difficulty of respiration particularly on bodily exertion: The inspiration quick and with great

effort the expiration slower, without effort. There is often an inability of lying in the recumbent position with the head low; also more or less difficulty of breathing on ascending heights or stairs and flights of stairs; oedema of the ankles, sometimes also of the scrotum of males, and the labia pudendi of women (which sometimes attends, which is at first dry, ~~and~~ in the course of some time becoming moist and attended with expectoration, fever and considerable thirst); a torpid state of the bowels, with more or less gastric disturbance. The Urine is often scanty, varied red, and sometimes coagulable by heat. To these may be added, oedema of the face, and a pale blanched countenance. Dreams frequently haunt the slumbers of the patient; and he often starts suddenly

from his sleep, panting and greatly
oppressed in his breathing; or the patient
is often alarmed by violent palpitations
of the heart. Sometimes a numbness of one
or both arms attends this disease.
The pulse is frequently very irregular
and intermittent, in fading a pressure
sometimes the finger not can be described.
It readily regained by the application of
friction. The tongue does not generally
have much of an morbid state.
On the application of the Stethoscope, we have
the respiratory murmur perceptible on its dull
and dizzed figure in the under or is said
to induce great difficulties in its hum
more dyspnoea is advanced, the
dyspnoea becomes more severe, the
characteristic of an acute or chronic
incumbent posture, and is often accompanied

[illegible] at nature; he is frequently roused from his sleep by fearful dreams, which greatly agitate his nervous system, and increase his difficulty of breathing so that the anxiety & distress of this disease is completed in sleep with his shoulders elevated in his bed, and his windows open to give him a mind to these there are convulsive spasms of the muscles destined for respiration, producing symptoms resembling spasmodic asthma; the heart is thrown into violent action by coughing or any sudden exertion. The face now becomes pale, and the lower jaw & cheeks widened at the angles; and added to these, cold extremities and a weak and evidently intermittent pulse. There is then pain which extends from the region of the heart to the insertion of the deltoid.

muscles of one or both arms. The countenance becomes still paler and the lips have a livid hue, particularly during a paroxysm of dyspnoea; at the same time [illegible] [illegible] covered with cold sweat.

In the later period of this form the disease is often attended with convulsions, coma, and delirium. If the circulation is much interrupted, the respiration [illegible] becomes [illegible]; and death may take place either suddenly or the patient dies of general dropsy and slow exhaustion of strength. Sometimes persons die during the [illegible] of a paroxysm of dyspnoea; [illegible] [illegible] died during [illegible], as [illegible], and bodily exertions in attending [illegible] or public duties, and it is not uncommon

[illegible]

[illegible] to the [illegible]

The Causes predisposing to this disease are the same that produce other inflammatory diseases, as irritation, congestion, and inflammation. The main agents are cold, intemperance, indulgence in the pleasures of the table, combined with an indolent state of the body and mind. Age—that beyond the middle period of life; for at this time there appears to be a tendency to a plethoric condition or fulness of the vessels, producing local congestion, which often results in inflammation, terminating in dropsical effusions. To these may be added an obstructed state of the perspiration.

The remote Cause may have

may be seen in an acute pleurisy badly treated, or from disease of the great blood vessels; enlargement and fatty disease of the heart lives, and therefore, misuse of Gout, and repeated inflammations; asthma, dyspepsia, and tremors of old people.

Diagnosis There are many diseases with which hydrothorax may be confounded as for instance angina pectoris; asthma, enlargement of the heart, and diseases of the great blood vessels &c.

These may generally be distinguished from hydrothorax by the general history of the disease but in obscure diagnosis is always difficult. We must study the case carefully and examine the patient minutely and from

continued visceral obstruction.
Hopes may be entertained of a favourable termination, if we have been called early, and ere the disease has become greedy; also if the patient be of a habit able to bear free debilitation.
Post Mortem examinations exhibit various states of disease, in the cavity of the thorax and pulmonary system. The lungs and pleura show marks of previous inflammation, with adhesions, hydatids are often found, also adhesions between the two pleura, sometimes tendinous cords are seen traversing the lungs. The heart is sometimes found diseased in its structure, and much increased in its volume.
The great blood vessels are often found much diseased, and,

at the same time. For instance, mere dyspnoea, hydrothorax may be distinguished by its peculiar characters and by the attendant development of affections or tendencies. We also have a certain amount of pain, which varies with states of the thorax, independently of the expression to be designed, and should an artificial pain the expression will be neither correct nor distinct enough. I am inclined that this could, in fact, to occur in Indian Dance, but this is to be depended on. It may also be stated that the Mythology is liable to objections, and the same may be urged against Scripture. For a dance based will be entitled on consciences or other to sinner are betrayed.

In diseases of the heart the patient

can generally be with perfect ease, and then is not left to a family of nurses. It may be next in order to consider the manner in which suspicion without confiding to anyone behaviour sets of symptoms, and with these aids, make a strict examination into the case.

Thirdly it is unpardonable when coming in persons addressed in life, to be intemperate, and indolent: also if there be much organic disease of long standing and produced in a slow and insidious manner.

We may expect a recommendation if the system has not been destroyed by age, and intemperate living, or greatly debilitated by old age and long

[illegible] are in an [illegible] state.
The tunics are [illegible], and
[illegible] the mucous membrane and sometimes
the [illegible] and [illegible] are
[illegible] and [illegible].
The pericardium is [illegible] and
[illegible] or [illegible] by [illegible], or serous
[illegible] and [illegible] in [illegible]
[illegible] it is [illegible], [illegible],
[illegible] with blood; it [illegible] transparent, or filled with flocculi, albumenous,
and mixed with a [illegible] [illegible],
or even pus. The lungs are void of
air, and the [illegible] if it has been [illegible]
blood instead of [illegible], with the
[illegible] studded, with red points.
The [illegible] is often found much
thickened, and the abdominal
viscera also much diseased.

[illegible]

[illegible]

[illegible]

respiration, pleurisy sore in the side, and the blood was found tarry or effed: or as soon as the pneumato-cephalous circulation was not to be attributed the exudation, pain, and menses, fever and cure

The blood can not pass a solution of the lungs, and in other conditions, as the negro, it has been seen to be found in other quantities, unstained and coagulated.

Lungs is the seat the most mode. of complaints and also been in this form of organ and well and more in one of this disease.

Lungs bread by sulphur's particulars, adds the hydrocarbon the alone conjunct dangerous will also be found convenient here.

After the inflammatory symptoms have been somewhat reduced by general and local depletion, blisters may then be employed.

Blisters must not [illegible] indulgence [illegible], the continuance of [illegible] continuing on the abdomen [illegible] [illegible] may be applied successively to parts of the chest, or between the shoulders. [illegible] [illegible], which act as a derivative, and at the same time keep up irritation on the exterior of the thorax, [illegible] to be renewed [illegible], and again applied; and thus repeated as the symptoms demand. There is one great advantage in this last mode of employing blisters; it gives us

are opportunely prescribed. Dry and wet cupping in this way we may alternate our local applications. I have found this plan well suited to the chronic form of the disease, and to those cases of bronchitis or at least asthma.

Other local applications have been also recommended. I allude to the external application of the tartrate of antimony and potash, in the form of an ointment. This is a very efficacious mode of producing external irritation and keeping up a discharge from the surface of the body.

Opiates have been highly recommended by some physicians, and may be useful in some cases.

From consideration of the subject
in regard to the increasing general
and special disease, all other
medicines recommended in the cure
of Diabetes are Bad, more than
useless and more powerful
established and drive the most
incurable of any of the formidable diseases.

Before we can see and the extreme
medicine, or invalid the reason
has been in a considerable degree.
we are to resort to Diuretics. The best
of this class of remedies are Teckika
Cantharides, Digitalis and Scilla
or Squill. The first of these is given
in combination with Camphor
Bicarbonate of Potash and
Antimony, and the Citrous Powders.

It is best always to use the cathartic powders after bleeding, to reduce any inflammatory arterial movement, and thus, relieve the system for the quinine and calomel: two grains of the corrosive sublimate and a dozen grains of calomel, in a cathartic powder, may be given three times a day, until the mouth becomes tender. If this should then the calomel must be omitted and the chloride continued for a short time after the occurrence of a slight salivation, we shall find the symptoms mild and the condition of the patient much improved.

We shall now find the chloride to exert its influence on the urinary organs, causing a free discharge of urine, which

Opium and its preparations are indicated in the early stage of the disease.

Tar water should be administered in the early and incipient stage, but we must then resort to other remedies as Leptandra and Cornus.

Tar water is most efficacious in those cases accompanied with a cold moist breath, pulse and pale countenance. Tried it must be found with advantage in cases of the atonic form, and it is well suited to persons of delicate constitutions.

Digitalis may be given alone, or combined with Squill, Calomel or Nitrate of Potash: the dose, alone, or in combination, is half a grain, which may be gradually increased to two

unless these times a dose ... it in [illegible] ... it in pill or powder.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] effects [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] effects are [illegible] acknowledged [illegible] that it does not produce decided effects in two or four days it should be discontinued for a few days, and if no evidence is afforded of its effects on the system, we may then begin its administration [illegible] always commencing with the quantity first given and [illegible] increasing the strength [illegible].

Sometimes we have found Digitalis to act like a charm, and copious discharges of urine with an amelioration of all the urgent symptoms result

[illegible] the [illegible] and [illegible] local [illegible] inflammation.

In circumstances [illegible] distinguished [illegible] the [illegible] of Colchicum may be used, either alone or in combination with other articles, with Antimony, Spirits of nitre, and the Tincture of Squills, agreeable to Dr Ferriars formula.

If the patient be a drunkard the Juniper will often prove beneficial. The berries of this class of remedies may often be [illegible] in the form of a [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the spirits of nitre, [illegible], or added to an infusion of the [illegible], or of the [illegible] of the Dandelion and Parsley.

If our good diuretics not be received by the stomach, we may resort to purgatives, [illegible] [illegible] and the [illegible] [illegible] [illegible] [illegible] [illegible].

Purgatives of a drastic nature are generally asserted by us Croton, Croton oil, Gamboge, Senna, and the compound powder of Jalap.

As a general rule, no benefit will result from active purging in any of the diseases of the chest. mild laxatives are all that are required; and throughout the treatment of Hydro-thorax, the patient's bowels should be kept regular.

As the lungs are often affected by inflammation, phlegm or mucus is apt to collect in the bronchial tubes,

when it has extensive ramifications.
So much has undoubtedly, emetics and
irritants are to be administered; but
it will seldom be required to treat a
patient on this disease

Among the class of expectorants,
those possessing diuretic powers should
be preferred, as the squill, digitalis, senega,
garlic, and pyrethrum.
When a tonic expectorant is indicated,
the Cascarilla Bark will be found
very efficient, as a salutary remedy
at the closing period of the disease.
The pyrethrum, in moderate doses,
will be very useful where there is an
exhausted condition and want of
expectoration.

Should we have failed to relieve
our patient by local and general

blood letting, purgatives, diuretics, mercury, low diet, and repeated blistering, we may then try the effects of keeping the patient under the influence of nauseating doses of emetics, for a few days: by this plan of treatment the fluid has been gradually removed and a cure thus effected.

It is important, throughout the treatment of hydrothorax, to keep the lower extremities well bandaged by a roller of muslin, particularly if much swelled.

No relief being obtained, and the symptoms becoming very [illegible] and the life of the patient in immediate danger, we may attempt relief by the operation of Paracentesis thoracis, provided fluctuation of the fluid be

evident. I shall conclude this essay by making some general observations upon the diet proper for the patient during the treatment and his convales=cence.

In the early part of the ~~of the~~ treatment of the disease, the diet should be strictly antiphlogistic, and where much febrile action and other inflammatory symptoms are present, a total absti=nence from everything should be enjoined for a few days: but if this cannot be acquiesced in, Barley or Gum Arabic water may be allowed. By fasting the powers of the absorbents are greatly increased, and by this plan alone cures have been effected.

But if the patient is advanced in years and possessed of a constitution

shattered by intemperance or weakened by previous disease, a nourishing diet will be demanded. Eggs, Oysters, Jellies, and plain broths may be allowed; with the free use of fluids, as Juniper Berry tea, Cream of Tartar whey, and if the patient be a drunkard, Gin and water may be taken, but the best drink is pure water.

The convalescent patient should be very guarded in his habits of living, as slight deviations from temperance and moderation, may renew all his sufferings: let him partake of plain and simple food, and by all means avoid stimuli of every kind.

-Finis-